

A New Genus and New Species of the Tribe Psammodiini (Coleoptera, Aphodiidae)

by

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With 2 figures

ABSTRACT

A new genus is described — *Petrovitzius* g. n. — for *Petrovitzius tesari* n. sp. from Madagascar and Mascarenes. The genus possesses all the characteristic features of the tribe Psammodiini. The specimens are remarkably broader behind, similarly as those of *Psammodius* Fallén and can be easily distinguished from any *Psammodius* and related genera particularly by carinate elytral intervals.

In 1977, I had the chance to study material of the tribe Psammodiini from the Petrovitz' collection kept in the Museum of Natural History in Genève. Among them, there were four specimens from Madagascar and Mascarenes labelled by Petrovitz "gen. nov.", whose description is, however, missing in the literature.

When considering relevant monographs — SCHMIDT (1922), BALTHASAR (1964), ENDRÖDI (1964) as well as individual newer works — LANDIN (1960), PETROVITZ (1962, 1963, 1967) we can conclude the following 15 genera of the tribe Psammodiini to be known at the present time: *Psammodius* Fallén (1807), *Diastictus* Mulsant (1842), *Rhyssmodes* Reitter (1892), *Pleurophorus* Mulsant (1842), *Odochilus* Harold (1877), *Rhyssemus* Mulsant (1842), *Myrhessus* Balthasar (1955), *Pararhyssemus* Balthasar (1955), *Trichiorhyssemus* Clouët (1901), *Rhyssemorphus* Clouët (1900), *Phycochus* Broun (1886) with subgenera *Sicardia* Reitter (1896) and *Brindalus* Landin (1960), *Aphodopsammobius* Endrödi (1964), *Boucardius* Petrovitz (1967), *Mysarus* Petrovitz (1962), and *Trichiopsammobius* Petrovitz (1963). The animals discussed here are really distinctively different from species of any of the above genera. The description of the new genus and new species will be presented below.

I am greatly indebted to Dr. Cl. Besuchet and Dr. I. Löbl, who enabled me to study the material from the Muséum d'Histoire Naturelle in Genève. I established the generic name *Petrovitzius* in honour of the late famous scarabaeologist, R. Petrovitz, who first suggested these specimens to represent a new genus, and the name of the species *tesari* in honour of my dear friend Dr. Z. Tesař, who helps me permanently with valuable advises in my taxonomic work.

Petrovitzius gen. n.

Strongly convex, oval, remarkably broader behind (Plate 1).

The head strongly convex, remarkably bent downward anteriorly. Anteriorly with large tubercles, posteriorly with oblique ridges. The clypeus anterior margin emarginate (Fig. 1-b).

The pronotum with transverse ridges.

The scutellum small, triangular, rather indistinct, depressed deeply below the level of the sutural interval.

The elytra with strongly convex lateral margins (Fig. 1-a), with ten strongly carinate intervals (the sutural interval inclusive) and 10 grooves (the elytral structure can be most properly observed when having the specimen inclined sideways under the microscope, with light coming obliquely from side).

The posterior and intermediate tibiae without transverse ridges, moderately widened apically, each with a pair of terminal spurs. The anterior tibiae (Fig. 1-e) with three teeth and one terminal spur. The posterior tarsi moderately shortened, their segments moderately, however, quite distinctly triangularly widened (Fig. 1-d). The upper terminal spur slim, thicker at the base and continuously narrowed apically, remarkably longer than the first tarsal segment. The anterior, intermediate, and posterior femurs all of about the same width.

The genotype: *Petrovitzius tesari* sp. n.

With respect to distinctly triangularly widened tarsal segments as well as to the whole habitus (convex, remarkably broader behind), this genus can be compared with the following genera of the tribe Psammodiini: *Psammodius* Fallén, *Diastictus* Mulsant, *Rhyssmodes* Reitter, *Phycochus* Broun, *Aphodopsammobius* Endrödi, and *Trichiopsammobius* Petrovitz. It can be easily distinguished from any of them by the strongly carinate elytral intervals, and by the scutellum deeply depressed below the level of the sutural interval, and thus rather indistinct.

Petrovitzius tesari sp. n.

Oval, strongly convex, broader behind (Plate 1), 2.7 to 3.2 mm, the length-to-width ratio 1: 0.472. Moderately shiny, dark brown, the legs, clypeus margins and lateral margins of the pronotum reddish brown.

The head (Fig. 1-b) anteriorly granulate (the granules relatively sparsely distributed), posteriorly with one pair of oblique ridges; irregular, curved, strong swellings anteriorly and laterally from the oblique ridges. The head surface very finely, microscopically punctate, in some specimens more or less chagrined. The clypeus roundly emarginate anteriorly, with rounded angle each side of the emargination. The clypeus lateral margins convex, the genae rounded, with either slightly expressed or non-expressed anterior margins (the clypeus lateral margins changed nearly continuously into the genae anterior margins).

The pronotum with 5 transversal ridges homologous to those usually occurring in many Psammodiini, visible from above; besides them, there is the sixth incomplete ridge, visible particularly laterally (see Fig. 1-c). The length-to-width ratio 1:1.450. The lateral margins smooth, bare, the basal margin with clavate setae, the anterior corners extended anteriorly. The area between the lateral fusion of transversal ridges (see Fig. 1-c) and lateral pronotum margin remarkably depressed, thus forming a remarkable furrow extended along the lateral margin. The first to fifth transversal ridges quite distinct, convex, however, not sharp. The sixth ridge laterally continuous, medially represented by individual tubercles. The fourth and fifth transversal ridges interrupted by a longitudinal furrow. The longitudinal furrow, the transversal furrows behind the

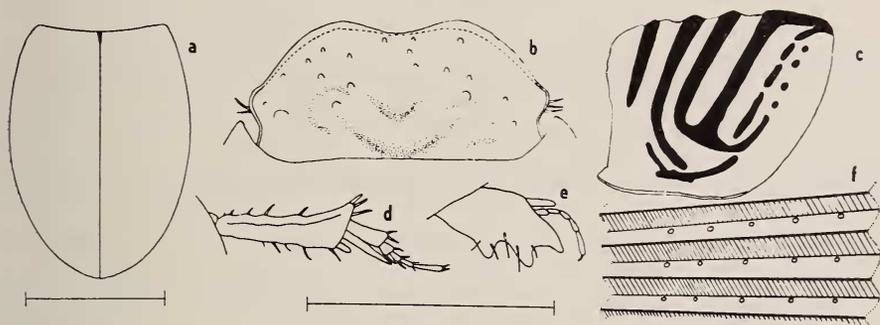


FIG. 1.

Petrovitzius tesari sp. n. a. shape of the elytra; b. the head; c. the pronotum (side view); d. the posterior tarsus and tibia; e. the anterior tarsus and tibia; f. elytral structure. The scale line — 1 mm.

first to fourth transversal ridges, and also the first transversal ridge coarsely punctate. The microstructure of the transversal ridge surfaces similar to that of the head.

The scutellum very small and narrow, depressed deeply below the suture level, and thus indistinct.

The elytra (Fig. 1-a) strongly convex, with indistinct humeral teeth, the length-to-width-to-height ratio 1:0.728:0.424, with 10 carinae; the 10th carina remarkable only in the humeral region, laterally decreasing in its height, the first (sutural) to ninth carinae very remarkable. The eighth, ninth, and tenth carinae rather incomplete, achieving about 4/6, 5/6, and 4/6 elytra length, respectively. Each carina with a row of small, about equidistantly, distributed grains adjacent to the bottom of grooves (see Fig. 1-f where a view is presented of discal part of an elytron — the specimen inclined obliquely, sideways under a microscope). The microstructure of the elytra similar to that of the head and pronotum.

The posterior tibiae (Fig. 1-d) moderately broadened apically, with two small teeth on the upper edge and a longitudinal row of four small teeth in the outer area (between the upper and bottom edge). The upper terminal spur remarkably longer than the first tarsal segment, however, hardly as long as the first and second tarsal segments combined. The tarsi moderately shortened, the first to third tarsal segments moderately, however, quite distinctly triangularly widened. The fifth segment equipped with a pair of small (not setaceous) claws.

The ventral surface dark reddish brown. The pygidium with a few hairs, the abdominal sternites bare, with a fine, microscopic structure. The metasternal plate smooth,

with a longitudinal furrow, which is narrow anteriorly, deeper and wider medially and posteriorly. The mesosternum and prosternum coriaceous. The femurs smooth, with relatively short and sparsely distributed hairs, with posterior, as well as anterior margin lines. All the femurs of about the same width. The trochanters with one seta each. The ratio of the posterior tarsi length to the posterior tibiae length 1:1.40.

Type material: holotype — Mauritius, Riambel, Oct 29, 1961, J. Vinson, 2 paratypes — Madagascar, Manambato, Anove, and Madagascar, Maroantsetra, J. Vadon (all in Muséum d'Histoire Naturelle, Genève), 1 paratype — Madagascar, Maroantsetra, J. Vadon (in my collection).

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